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EXAMINER

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ART UNIT

PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 57-60, 62-65, 66-70, 73-76 are rejected under 35 U.S.C 102(b) as being anticipated by Scott (EP 0605107A2).

Regarding claim 57, Scott discloses a method for transmitting data between respective first and second modems (38,40, fig. 3) in a telecommunication system wherein at least one of the modems is a PCM modem, characterized by in that the method comprises the steps of respective high and low data transmission rates for respective modems during hand shaking, the respective high and low data transmission rates for respective modems being same or different, and setting the modems to transmit at their respective data transmission rates during transmission in response to the volume of data to be transmitted such that neither of the two modems are set to transmit at their respective high data rates until the other of the two modems has been set to transmit at its low data transmission rate (col. 3, line 1 – col. 8, line 1; figs 1-8 and summary).

Regarding claim 66, Scott discloses telecommunication data transmission system comprising respective first and second modems (38, 40, fig. 3) wherein at least one of the modems is a PCM modem, the respective first and second modems comprising handshaking means in (50, fig. 6), characterized in that the respective

Art Unit: 2643

handshaking means of each modem comprises selecting means (50, fig. 6) for selecting respective high and low data transmission rates for respective modems during handshaking, the respective high and low data transmission rates for respective modems being the same or different and each modem comprises means (50, fig. 6) for setting its data transmission rate in response to the volume of data to be transmitted such that neither of the two modems are set to transmit at their respective high data transmission rates until the other of the two modems has been set to transmit at its low data transmission rate (col. 3, line 1 – col. 8, line 1; figs 1-8 and summary).

Regarding claims 58-60, 62-65, 67-70, 73-76 Scott further teaches the following: high data rate of respective modems are different, and low data transmission rates of the respective modems are different (figs. 3, 10), and preferably, the high and low data rates of the first modem are selected by selecting: corresponding high and low transmission power levels (this is implied in as much as the reference teaches transmitting data at different data rates which is related to power levels), spacing between signal levels of data to be transmitted, and preferably, the high and low data transmission of the second modem are selected by setting the spacing between the signal levels of the data signal to be transmitted, and advantageously, the data signals are transmitted as constellation points (figs. 4-5), the low data transmission rate of the first modem is selected by increasing the spacing between the constellation points, and preferably, the low data transmission rate of the second modem is selected by increasing the spacing between the points (figs. 4-5; col. 4, line 52 – col. 5, line 27), the respective high and low data transmission rates of at least one of the modems are

Art Unit: 2643

determined in response to the amount of echo, and preferably, the high and low data transmission rates of the at least one modem (38, 40, fig. 3) are determined for minimizing echo, and preferably, the respective high and low data transmission rates are determined for that first modem in response to echo, and advantageously, the respective high and low data transmission rates are determined for the second modem in response to echo (col. 4 lines 36-51), data signals transmitted between respective first and second modems are digitally encoded data signals, first modem (38, fig. 3) is a PCM modem, and second modem, each modem comprises a switch signal generating means (50, fig. 6) for generating a switch signal in response to volume (reads on backlog of data) to be transmitted by the modem, and means for setting the data transmission rate of each modem being responsive to a switch signal received from the other of the two modems for switching the modem having received the switch signal from one data transmission rate to the other, and preferably, the means (50, fig. 6) for setting the data transmission rate of the second modem is responsive to received switch signal (reads on answer tone) received from the first modem for switching from high data transmission rate to its low data transmission rate, and advantageously, the means for setting data transmission rate, and advantageously, the means for setting transmission rate of each modem is responsive to the received switch signal for switching from its high data transmission rate to its low data transmission rate, and preferably, the means for setting data transmission rate of each modem is responsive to received switch signal only if the volume of data to be transmitted by the modem no longer requires the high data transmission rate, and advantageously, the switch signal

is provided by a predetermined signal, selecting means (50, fig. 6) of the respective first and second modems are operational for alerting the respective selected high and low data transmission rates of the two respective modems during a retraining interrupt during data transmission (40, fig. 3 linear codec modem (col. 3, line 1 – col. 8, line 1; figs 1-8 and summary).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 61, 71-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott in view of Ungerbock (US PAT: 5,353,280).

Scott differs from claims 61, 71-72 in that although he teaches the following; respective modems (38, 40, fig. 3) are responsive to switch signal (reads on answer tone) received from the other of the two modems for switching from one data transmission rate to the other, and preferably, the second modem responsive to the received switch signal received from the first modem for switching from its high data transmission rate to its low data transmission rate, and advantageously, each modem is responsive to the received switch signal for switching from its high data transmission rate to its low data transmission rate, and, preferably, each modem is responsive to received switch signal if the volume of data to be transmitted by the modem no longer requires high data transmission rate, and advantageously, the switch signal is provided

Art Unit: 2643

by a predetermined signal (col. 5, line 28 – col. 6, line 8); but he does not teach the following: switch signal comprises at least one illegal constellation point, and advantageously, the at least one illegal constellation point is followed by a predetermined number of legal constellation points, and ideally, the switch signal comprises predetermined sequence of legal constellation points, and preferably, the predetermined sequence of legal constellation points is an illegal sequence, and preferably, the switch signal comprises predetermined frame data signals, and advantageously, the switch signal comprises a reversed bit or byte.

However, Ungerbock discloses full-duplex start-up for modems which teaches the following: using signal constellation points for doing other things than transmission of data between modems (col. 5 lines 11-14).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Scott's system answer tone signal used for switching data rates with the following: switch signal comprises at least one illegal constellation point, and advantageously, the at least one illegal constellation point is followed by a predetermined number of legal constellation points, and ideally, the switch signal comprises predetermined sequence of legal constellation points, and preferably, the predetermined sequence of legal constellation points is an illegal sequence, and preferably, the switch signal comprises predetermined frame data signals, and advantageously, the switch signal comprises a reversed bit or byte as this arrangement would provide one of the methods, among many possible methods, of conveying control signals between modems to achieve desired control as taught by Ungerbock.

Art Unit: 2643

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (571)272-8098. The examiner can normally be reached on 9 Hr schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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Art Unit 2643